7. Place based innovation

Innovation Territorial Clusters and Strategic Economic Development of Russian Federation

ABSTRACT
Russia has experienced a recent transition towards a new paradigm for innovation development. Federal government has acknowledged the advantages of knowledge-based economy and has set the development of innovation territorial clusters as the key priority of its strategic economic development. A review of federal and regional government initiatives proposed to encourage innovative regional clusters formation, management, and development is provided. As a result, total of twenty-five regional clusters have been formed by 2011, and only 14 have received federal funding to support their future development. A Russian perspective on the role of both federal and regional governments, universities, and businesses in the development of innovation territorial clusters is described. The review and evaluation of the overall federal policies directed to stimulate the development are provided.

KEYWORDS: Russia, Economic Development, Innovation Cluster, Territorial Cluster.

BACKGROUND

Innovation is a process involving generation and application of knowledge. It takes place both within firms and across interfaces among universities, industries, and government agencies. Regional innovations are considered to be a condition for increasing prosperity directly contributing to new jobs creation [1]. Previous research has focused on the analysis of the conditions for innovation development including important roles of entrepreneurs, industry structure, universities, industry and government, quality of relationships between agents, knowledge frameworks, geography of the institutions, organization and culture [2,3,4]. The overall question remains how to stimulate the most effective innovation development and speed up the transition towards knowledge-based economy.

SCOPE AND OBJECTIVES

Recently, Russia has recognized the important role of government to encourage innovations, and recent federal policies are designed to subsidize innovation development on the regional levels. Given Russia's financial and other constraints, it is not obvious what type of innovations or their combinations, i.e., break-through or imitative innovations, the federal government should focus on?

In order to stimulate the break-through innovations, investments into R&D and innovation infrastructure creation such as business parks, technology and knowledge commercialization offices,

etc. are required. The second type of innovation is imitative innovations. The major instruments to stimulate these innovations are financial incentives, tax and customs policies to ease acquisition, import, and adaption of the existing technologies.

Traditionally, the acquisition and adaption of existing technologies precedes the development of its own break-through technologies. For example, many developing countries lack necessary institutions and agents to conduct their own R&D and quickly adopt foreign technology. This is certainly not the case for Russia with developed R&D institutions and a record of scientific contributions. However, a significant gap between knowledge generation and its application still remains.

DETAILED DESCRIPTION

Innovation territorial clusters are considered a new key priority for Russia's strategic economic development. In the article, the Russian perspective on innovation territorial clusters, their definition, roles, and federal initiatives to stimulate their development are provided. A recent pilot project "Cluster Development Program (2012-2016)" to stimulate cluster development is described, and the role of the ministry of economic development in stimulation cluster development is discussed. The preliminary results of the project are the establishment of twenty-five innovation territorial clusters with only fourteen clusters being currently supported by the federal government.

Since 2011, the federal government declared a number of financial initiatives to support trilateral collaboration. Federal grants are a major financial mechanisms to encourage this collaboration. Entrepreneurial universities are considered to be the core of innovation territorial clusters, and a number of federal initiatives are directed to build their innovation infrastructure.

In September 2012, the Association of Russian Entrepreneurial Universities has been formed. The Association represents institutions striving to become entrepreneurial universities. The concept of the entrepreneurial university, its benefits to society, and its role in regional development and knowledge-based economy, are widely acknowledged in Russia. Recently, a few successful steps have

been made in this direction [5], and the creation of the Association is another incremental advancement. Members of the Association share a common vision - that the entrepreneurial university is the next evolutionary step for a research university, the core of innovation territorial cluster, and a new balance between science, education, and innovation. The Association is a platform to enhance formal and informal collaboration networks, resolve challenges, and pursue common objectives.

The Association's declaration defines its goals, mission, structure, and future activities. The mission is·(1) to create a platform to share and exchange experiences of the transition towards an entrepreneurial university; (2) to organize an effective collaboration between the Skolkovo Fund and the universities in order to increase their role in building the knowledge-based economy, and (3) to assist to the development and implementation of the model of the entrepreneurial university in Russia.

Finally, a review of the Tomsk IT and Electronics cluster, one of the federally supported territorial innovation cluster is described to illustrate the recent developments.

CONCLUSION

The article attempts to provide a recent review of the shift in policy regarding innovation development in Russia. The last decade is characterized by the creation of favorable market environment to nurture innovations and establishment of innovation infrastructure. Given the large government investments to build the innovation infrastructure, the most efficient way to stimulate economic development and transition toward the knowledge based economy in Russia is to stimulate innovation development on the regional level with a mix of both policies targeting the development of break-through technologies and the adaption of the existing ones. The approach allows to minimize the overall risks associated with a single direction of the strategic innovative development of Russia, diversify the risks on the regional level, and allow regions decide on their own regional strengths and opportunities.

One of the noted problems of the innovation development in Russia is a lack of business demand for high-tech products and business interest in knowledge commercialization. Additional

question to explore is how to decrease the large gap and lag between knowledge generation and its application known as “European paradox”.

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